

# List of Plants



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\*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Plant Part	Low PPM	High PPM	StdDev	*Reference
Abelmoschus moschatus	Seed	--	65000.0	-0.44	Wealth of India.
Abies balsamea	Gum	--	--		*
Acalypha indica	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Achillea millefolium	Plant	--	6000.0	-0.86	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Acorus calamus	Rhizome	--	25000.0	-1.38	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Acorus calamus	Plant	--	--		*
Actaea racemosa	Root	--	--		*
Agathosma betulina	Leaf	--	50000.0	-0.28	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Aloe vera	Plant	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Alpinia galanga	Rhizome	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Anaphalis margaritacea	Plant	--	--		*
Andira inermis	Bark	--	--		*
Anemone pulsatilla	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Annona squamosa	Plant	--	--		*
Annona muricata	Plant	--	--		*
Apocynum cannabinum	Plant	--	--		*
Areca catechu	Seed	--	--		*
Argemone mexicana	Plant	--	17500.0	-0.79	*
Arundo donax	Stem	--	--		*
Azadirachta indica	Seed	--	--		*
Baptisia tinctoria	Plant	--	--		*
Barosma betulina	Leaf	--	50000.0	-0.28	*
Berberis vulgaris	Plant	--	--		*
Borago officinalis	Plant	--	--		*
Boswellia sacra	Latex Exudate	600000.0	700000.0	0.9	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Bursera simaruba	Plant	--	--		*
Bursera delpechiana	Wood	--	--		*
Calendula officinalis	Flower	--	34000.0		*
Canarium indicum	Gum	--	--		*
Carica papaya	Latex Exudate	--	28000.0	-1.53	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Cathartus roseus	Root Bark	--	20000.0		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Caulophyllum	Root	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Ceiba pentandra	Leaf	--	--		*
Centella asiatica	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Chamaesyce hypericifolia	Plant	--	--		*
Chimaphila umbellata	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Cimicifuga racemosa	Root	--	--		*
Cinchona spp	Bark	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Commiphora myrrha	Resin, Exudate, Sap	200000.0	400000.0		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Copaifera spp	Gum	60000.0	540000.0	-1.0	*
Coriaria myrtifolia	Leaf	--	--		*
Cornus florida	Bark	--	--		*
Croton eluteria	Bark	--	150000.0	1.56	*
Croton lechleri	Plant	--	--		Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Croton tiglium	Seed	10000.0	34000.0	-1.09	*
Cryptostegia grandifolia	Seed	--	175000.0	1.87	*
Cuminum cyminum	Fruit	--	--		*
Cuminum cyminum	Seed	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Curcuma zedoaria	Rhizome	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Curcuma longa	Rhizome	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Cyperus rotundus	Root	--	42100.0	0.67	*
Daemonorops draco	Fruit	--	--		*
Dodonaea viscosa	Leaf	--	66400.0	0.53	*
Echinacea purpurea	Root	5020.0	20000.0	-1.17	*
Eleutherococcus senticosus	Root	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Ephedra nevadensis	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Eriodictyon californicum	Leaf	8800.0	80000.0	1.19	*
Eucommia ulmoides	Bark	--	70000.0	0.15	Chemical Constituents of Oriental Herbs (3 diff. books)
Eupatorium perfoliatum	Plant	--	--		*
Euphorbia tirucalli	Latex Exudate	--	--		*
Euphorbia hirta	Plant	--	--		*
Ferula assafoetida	Plant	400000.0	640000.0	3.07	Tucker, A. O. and Debaggio, T. 2000. The Big Book of Herbs. Interweave Press, Inc. Loveland, CO. 688 pp.
Ferula sumbul	Plant	--	170000.0	0.16	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ficus carica	Leaf	--	22000.0	-1.65	Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.
Frangula purshiana	Plant	--	--		*
Garcinia hanburyi	Plant	--	--		*
Geranium maculatum	Plant	--	--		*
Glechoma hederacea	Plant	--	--		Jim Duke's personal files.

<i>Grindelia squarrosa</i>	Plant	--	200000.0	0.34	*
<i>Guaiacum</i> sp.	Wood	--	200000.0	1.32	*
<i>Guarea rusbyi</i>	Bark	--	23000.0	-0.67	*
<i>Haemat oxylum campechianum</i>	Wood	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Hedera helix</i>	Plant	--	--		*
<i>Hemidesmus indicus</i>	Root	--	--		*
<i>Hibiscus sabdariffa</i>	Calyx	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Holarrhena pubescens</i>	Bark	--	2000.0	-1.04	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Hydrangea arborescens</i>	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Hydrastis canadensis</i>	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Hyoscyamus niger</i>	Seed	--	--		*
<i>Hyssopus officinalis</i>	Plant	--	--		*
<i>Ilex paraguariensis</i>	Leaf	--	48000.0	-0.37	*
<i>Inula helenium</i>	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Ipomoea purga</i>	Tuber	100000.0	200000.0		*
<i>Iris versicolor</i>	Rhizome	--	--		*
<i>Iris x germanica</i>	Rhizome	--	--		*
<i>Jasminum officinale</i>	Leaf	--	--		*
<i>Juniperus communis</i>	Fruit	80000.0	100000.0	0.5	*
<i>Lactuca scariola</i>	Latex Exudate	--	--		*
<i>Lagochilus inebrians</i>	Plant	30000.0	90000.0	-0.34	*
<i>Larrea tridentata</i>	Plant	49350.0	200000.0	0.34	*
<i>Lawsonia inermis</i>	Leaf	20000.0	30000.0	-1.25	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Leonotis leonurus</i>	Plant	--	198000.0	0.33	*
<i>Leonurus cardiaca</i>	Plant	--	--		*
<i>Levisticum officinale</i>	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Ligustrum vulgare</i>	Bark	--	--		*
<i>Lindera benzoin</i>	Plant	--	--		*
<i>Lobelia inflata</i>	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Lycopus europeus</i>	Plant	--	29000.0	-0.72	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Maclura pomifera</i>	Fruit	166640.0	216900.0	2.0	Smith, J. L. and Perino, J. V. 1981. Osage Orange ( <i>Maclura pomifera</i> ): History and Economic Uses. Economic Botany 35(1): 24-41
<i>Mahonia aquifolium</i>	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Manilkara zapota</i>	Latex Exudate	--	380000.0	-0.26	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
<i>Marrubium vulgare</i>	Plant	--	--		*
<i>Melia azedarach</i>	Plant	--	--		*
<i>Mentha arvensis</i> var. <i>piperascens</i>	Plant	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Mirabilis jalapa</i>	Root	--	30000.0	-0.34	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Myrica cerifera</i>	Bark	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Myroxylon</i>	Gum	--	--		*

<i>Myrtus communis</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Nigella sativa</i>	Seed	--	--		*
<i>Oenanthe aquatica</i>	Fruit	--	40000.0	-0.27	*
<i>Oenothera biennis</i>	Plant	--	--		*
<i>Ononis spinosa</i>	Plant	--	--		*
<i>Opopanax chironium</i>	Plant	--	190000.0	0.28	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Opopanax chironium</i>	Hh	--	190000.0		*
<i>Panax quinquefolius</i>	Plant	--	--		*
<i>Paullinia cupana</i>	Seed	--	70000.0	-0.34	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Peucedanum ostruthium</i>	Plant	--	--		*
<i>Peumus boldus</i>	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Peumus boldus</i>	Plant	--	--		*
<i>Physalis alkekengi</i>	Fruit	--	2000.0	-0.76	*
<i>Physalis peruviana</i>	Fruit	--	2000.0	-0.76	*
<i>Phytolacca americana</i>	Root	--	--		*
<i>Piper angustifolium</i>	Leaf	--	--		*
<i>Piper methysticum</i>	Root	--	53000.0	1.58	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
<i>Piper nigrum</i>	Fruit	--	5000.0	-0.72	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Pistacia vera</i>	Plant	--	--		*
<i>Plantago major</i>	Plant	--	--		*
<i>Podophyllum hexandrum</i>	Leaf	78000.0	97000.0	2.03	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Podophyllum hexandrum</i>	Rhizome	60000.0	200000.0	0.43	*
<i>Podophyllum peltatum</i>	Plant	30000.0	60000.0	-0.53	*
<i>Polygala tenuifolia</i>	Root	--	--		*
<i>Polypodium vulgare</i>	Rhizome	--	--		*
<i>Populus nigra</i>	Plant	--	--		*
<i>Portulaca oleracea</i>	Plant	--	24000.0	-0.75	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Prunella vulgaris</i>	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Prunus serotina</i>	Stem Bark	--	--		*
<i>Psoralea corylifolia</i>	Seed	--	86000.0	0.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Pterocarpus marsupium</i>	Wood	--	9000.0	-1.11	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Quercus alba</i>	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Quercus robur</i>	Bark	--	--		*
<i>Rheum officinale</i>	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Robinia pseudoacacia</i>	Bark	--	--		*
<i>Rosa gallica</i>	Flower	--	--		*
<i>Rosa centifolia</i>	Flower	--	--		*
<i>Rumex hymenosepalus</i>	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

<i>Ruscus aculeatus</i>	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Salix alba</i>	Bark	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Salvia officinalis</i>	Plant	50000.0	60000.0	-0.53	*
<i>Sambucus nigra</i>	Leaf	--	43400.0	-0.6	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Sambucus canadensis</i>	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Sanguinaria canadensis</i>	Plant	--	--		*
<i>Sanguisorba minor</i>	Plant	--	--		*
<i>Santalum album</i>	Wood	50000.0	80000.0	-0.21	*
<i>Santolina chamaecyparissus</i>	Plant	--	--		*
<i>Sassafras albidum</i>	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Satureja hortensis</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Schinus terebinthifolius</i>	Bark	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Scutellaria churchilliana</i>	Plant	--	--		*
<i>Scutellaria lateriflora</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Senecio aureus</i>	Plant	--	--		*
<i>Simarouba amara</i>	Bark	--	--		*
<i>Smilax spp</i>	Root	--	25000.0	-0.75	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Smilax china</i>	Root	--	--		*
<i>Stillingia sylvatica</i>	Plant	--	--		*
<i>Styrax tonkinensis</i>	Gum	700000.0	800000.0	1.0	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Styrax benzoin</i>	Plant	--	--		*
<i>Swertia chirata</i>	Plant	--	--		*
<i>Symphytum officinale</i>	Root	--	--		*
<i>Symplocarpus foetidus</i>	Plant	--	--		*
<i>Syzygium aromaticum</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Taraxacum officinale</i>	Root	--	--		*
<i>Teucrium marum</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Thevetia peruviana</i>	Latex Exudate	674000.0	697000.0	0.89	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Thuja occidentalis</i>	Branches	--	--		*
<i>Thymus vulgaris</i>	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Trifolium pratense</i>	Plant	--	--		*
<i>Turnera diffusa</i>	Branches	--	65000.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Turnera diffusa</i>	Leaf	13650.0	65000.0	0.46	*
<i>Valeriana officinalis</i>	Root	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
<i>Vanilla planifolia</i>	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Veratrum album</i>	Rhizome	--	250000.0	0.95	*
<i>Veronica officinalis</i>	Plant	--	--		*
<i>Viburnum</i>	Root Bark	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics,

Viscum album	Plant	--	--		*
Xylopi aethiopia	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Zanthoxylum americanum	Plant	--	--		*
Zea mays	Silk Stigma Style	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Zizyphus jujuba	Leaf	--	60000.0	0.21	*